

THREATENED & ENDANGERED

SPECIES

EASTERN INDIGO SNAKE



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ONE OF South Alabama's non-venomous reptiles that inhabits open, dry sandy ridges and intervening waterways, swamps, and wet depressions is the Eastern indigo snake (*Drymarchon corais couperi*). Attaining a maximum total length of nearly 8 1/2 feet, the Eastern indigo snake is considered the longest snake in North America. However, most adults range between 6 to 7 1/2 feet. The color of this impressive animal is a uniform, shiny bluish-black except for the area about the chin, cheeks, and throat, which may be reddish or cream-colored. The scales are large and smooth (may be lightly keeled along the central 3-5 rows on some males) and occur in 17 rows at mid-body. Hatchlings are typically 18 to 24 inches and are similar in color to the adults with the exception of some having light gray spots that disappear with age.

The indigo snake found in the Southeast is one of eight described subspecies that are primarily tropical in distribution. The species *Drymarchon corais* has an overall range that extends from the Coastal Plain of the United States to northern Argentina with a core distribution of six subspecies occurring in South and Central America. One other sub-

species of *Drymarchon corais* occurs in the United States, the Texas indigo snake (*D. c. erebennus*). The latter is found in the arid region of South Texas to Veracruz and Hidalgo, Mexico.

Eastern indigo snakes are known to use a wide range of habitats. Individuals have been observed along dry sandhills within longleaf pine-scrub oak associations, pine flatwoods, stream bottom thickets, agriculture fields, and margins of swamps and wet depressions. Studies suggest that a mosaic of habitats is needed to complete their annual cycle. Large expanses of gopher tortoise-inhabited sandhills with interspersed wetland areas provide optimal habitat for indigos. Gopher tortoise burrows are used as a retreat and refuge from winter cold and provide nest sites for indigos during the spring. Nearby shaded wetlands provide relief from summer heat and offer foraging opportunities. In areas without an abundance of gopher burrows, refuge may be sought in hollowed root channels, hollow logs, or the burrows of rodents and armadillos.

An active daytime predator, the Eastern indigo will consume practically any vertebrate it can subdue. The diet of an adult indigo snake may include fish, frogs, toads, lizards, turtles, turtle eggs, juvenile gopher tortoises, small alligators, birds, small mammals, and snakes including venomous snakes ("rattlers"). Juvenile indigos feed upon invertebrates but may also consume small vertebrates as well.

The Eastern indigo is often mistaken for other black snakes that occur within its range. The common black racer (*Coluber constrictor*) and the black pine snake (*Pituophis melanoleucus lodingi*) are two species that resemble the indigo at a glance, but these two are distinguishable based on a few obvious characteristics. The black racer is a more slender and faster moving snake that has a divided anal plate. The indigo is a more stout-bodied animal, moves more slowly, and has a single anal plate (most field guides for reptiles will explain the anal plate structure in detail). The single

most separable feature for the black pine snake is the prominently keeled scales on the snake's dorsum (back and sides).

Based on historical sightings, collection records, and guesswork, the Eastern indigo snake was reported to have ranged from South Carolina through southern Georgia, peninsular Florida, and westward to Mississippi and possibly eastern Louisiana. In Alabama, the Eastern indigo snake was recorded from Satsuma and the Grand Bay area of Mobile County, an unreported locality in Baldwin County, and two specimens collected north of Florala in Covington County. These observations and collections all represent records dating from the first half of the 20th century. By the mid 1970s, herpetologists seriously questioned the snake's continued existence in Alabama, and in 1978, the Eastern indigo snake was listed as a threatened species by the federal government. Over-collecting for the pet trade, mortalities caused by the "gassing" of gopher tortoise burrows (often associated with "rattlesnake round-ups"), and habitat loss and fragmentation by residential and commercial expansion all contributed to the species' abrupt decline and eventual listing.

In 1977, Dr. Dan W. Speake of Auburn University began an intensive captive breeding and experimental reintroduction program of the Eastern indigo snake. Various age classes of the snakes were released into protected areas in Alabama, Georgia, Florida, Mississippi, and South Carolina. In Alabama, nine separate localities were carefully chosen and snakes were released in Autaugaa, Baldwin, Bullock, Covington, Escambia, Mobile, and Washington counties between 1978 and 1986. Presently, it is not known if all of the releases were successful. As of late, the most encouraging reports are coming from the northwest corner of Mobile County. However, much work and visits into the release areas are needed to fully ascertain the success of the reintroductions.

If anyone is aware of plausible sightings of indigo and/or black pine snakes in the counties mentioned above, please contact Barry Hart of the Alabama Natural Heritage ProgramSM at (334) 834-4519, ext. 24. Your participation in sharing such observations will greatly lend to the conservation and protection of one of Alabama's treasured animals. 🐍